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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,693	12/30/2003	Kazutaka Inukai	12732-204001 / US6879	2849
26171	7590	10/28/2004	EXAMINER	
FISH & RICHARDSON P.C. 1425 K STREET, N.W. 11TH FLOOR WASHINGTON, DC 20005-3500				YOUNG, BRIAN K
			ART UNIT	PAPER NUMBER
			2819	

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/747,693	INUKAI, KAZUTAKA	
	Examiner Brian Young	Art Unit 2819	
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>			
<b>Period for Reply</b>			
<b>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.</b>			
<ul style="list-style-type: none"> <li>- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>			
<b>Status</b>			
1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>the application filed 7/28/04</u> .			
2a) <input type="checkbox"/> This action is <b>FINAL</b> .                            2b) <input checked="" type="checkbox"/> This action is non-final.			
3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.			
<b>Disposition of Claims</b>			
4) <input checked="" type="checkbox"/> Claim(s) <u>1-15</u> is/are pending in the application.			
4a) Of the above claim(s) _____ is/are withdrawn from consideration.			
5) <input type="checkbox"/> Claim(s) _____ is/are allowed.			
6) <input checked="" type="checkbox"/> Claim(s) <u>1-3,5-7 and 10-15</u> is/are rejected.			
7) <input checked="" type="checkbox"/> Claim(s) <u>4,8 and 9</u> is/are objected to.			
8) <input type="checkbox"/> Claim(s) _____ are subject to restriction and/or election requirement.			
<b>Application Papers</b>			
9) <input type="checkbox"/> The specification is objected to by the Examiner.			
10) <input type="checkbox"/> The drawing(s) filed on _____ is/are: a) <input type="checkbox"/> accepted or b) <input type="checkbox"/> objected to by the Examiner.			
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).			
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).			
11) <input type="checkbox"/> The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.			
<b>Priority under 35 U.S.C. § 119</b>			
12) <input checked="" type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).			
a) <input checked="" type="checkbox"/> All    b) <input type="checkbox"/> Some * c) <input type="checkbox"/> None of:			
1. <input checked="" type="checkbox"/> Certified copies of the priority documents have been received.			
2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____.			
3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).			
* See the attached detailed Office action for a list of the certified copies not received.			
<b>Attachment(s)</b>			
1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)		4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.	
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)		5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)	
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>7/28/04</u>		6) <input type="checkbox"/> Other: _____.	

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

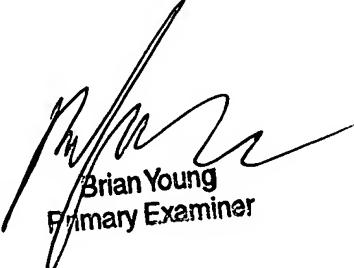
2. Claims 1,2, 3,5-7, and 10-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Koyama et al.

3. Koyama et al disclose, FIG. 7, D/A converter 11 has a constant current circuit L.sub.M for a monitor, in addition to the common constant current circuits L.sub.1, L.sub.2, . . . , L.sub.255 that generate video signals 20. In the constant current circuit L.sub.M, a switch S.sub.M, which is almost the same as the FET switches S.sub.3 of the other constant current circuits, is connected in series. The constant voltage power supply V.sub.CC is supplied to the source side of the FET switch S.sub.M, and the drain side is grounded at the GND via a resistor R ( $R=V_{CC} I_0$ ). The resistor R functions to change to a monitor voltage  $V_{M}$  a monitor current  $I_M$  that flows through the constant current circuit L.sub.M. A differential amplifier 34 extracts the monitor voltage  $V_M$  at point P and receives it at its input terminal that is on the non-inverted voltage side, while it receives referential voltage  $V_{ref}$  that is externally generated at the inversion input terminal. A gate voltage that is consonant with the potential difference between the monitor voltage  $V_M$  and the referential voltage  $V_{ref}$  is supplied to the FET switches S.sub.3 of the constant current circuits L.sub.1, L.sub.2, . . . , and L.sub.255, and thus the feedback control for the output current  $I_0$  is realized. In other words, the method shown in FIG. 7 accomplishes the

feedback control indirectly by using the constant current circuit L.sub.M, which differs from the constant current circuit that is originally employed for the output.

The feedback control shown in FIG. 7, however, is provided with the presumption that the FET switch S.sub.M for a monitor has the same characteristic as the switches S.sub.3 of the constant current circuits, and that the current I.sub.M that flows through the constant current circuit L.sub.M for a monitor has the same intensity as the output current I.sub.0 that flows through the other constant current circuits L.sub.1, . . . . In other words, the problem concerning the variance in the switching characteristics of the semiconductor switches on a chip is not solved. Therefore, if there is a difference .DELTA.I in the output current between the switches S.sub.M and S.sub.3, because of the variance in the switching characteristics, through the output terminal 41, the difference .DELTA.I, either directly or after being accumulated, appears as luminance fluctuation on the screen and deteriorates image quality. In addition, the current that is consumed by the constant current circuit L.sub.M for a monitor do not relate to an original video signal, and even though it is slight, there is an increase in the power consumption.

4. Claims 4,8, and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



Brian Young  
Primary Examiner